## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

| Applicant(s): Vishwanathan et al.             |                                |                              |
|---|--------------------------------|------------------------------|
| Serial No.: 09/608,537                        |                                |                              |
| Filed: 6/30/2000                              | Group Art Unit: 3724 Examiner: | JUL OF                       |
| Title: POLISHING PADS FOR CHEMICAL MECHANICAL | Eley, T.                       |                              |
| PLANARIZATION                                 |                                | 2003<br>9 2003<br>CENTEH R37 |
| Attorney Docket No.: 126                      |                                | + R372—                      |
| Commissioner for Patents                      |                                | C                            |

Commissioner for Patents Alexandria, VA 22313-1450

## INFORMATION DISCLOSURE STATEMENT

## Dear Sir:

This Information Disclosure Statement is submitted:

X under 37 CFR 1.97(b), or

| application; or before mailing date of first office action on the merits; whichever occurs last)   |
|--|
| <br>under 37 CFR 1.97(c) together with either a:  Statement under 37 CFR 1.97(e), or  a \$180.00 fee under 37 CFR 1.17(p), or  (After the CFR 1.97(b) time period, but before final action or notice of allowance, whichever occurs first) |
| <br>under 37 CFR 1.97(d) together with a:  Statement under 37 CFR 1.97(e), and a \$180.00 fee set forth in 37 CFR 1.17(p).  (Filed after final action or notice of allowance, whichever occurs first, but before payment of the issue fee) |

X Applicant(s) submit herewith Form PTO 1449-Information Disclosure Citation together with copies, of patents, publications or other information of which applicant(s) are aware, which applicant(s) believe(s) may be material to the examination of this application and for which there may be a duty to disclose in accordance with 37 CFR 1.56.

TECHNOLOGY CENTER R3700

The table below shows key properties of the Maple pad, both dry and after 24 hours in water:

| Parameter                   | Initial Dry | Wet   | %<br>Change |
|-----------------------------|-------------|-------|-------------|
| Swelling (in)               | 1.508       | 1.532 | 1.6         |
| Hardness (Shore D)          | 45          | 30    | -33         |
| Modulus, E' (MPa)<br>(40°C) | 117         | 73    | -38         |
| KEL (1/Pa) (40°C)           | 948         | 1383  | 45          |
| Ratio of E' at 30°C & 90°C  | 4.0         |       |             |

In particular, please note that the Maple pad's dry ratio of E' at 30°C and 90°C is 4.0.

The relevance of the attached references is that this is the closest art of which Applicant is aware. Applicant submits that the above references taken alone or in combination neither anticipate nor render obvious the present invention. Consideration of the foregoing in relation to this application is respectfully requested.

It is requested that the information disclosed herein be made of record in this application.

Respectfully submitted,

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop RCE, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Blake T. Biederman Attorney for Applicant(s)

Reg. No. 34124

Date: July 2, 2003

Telephone No.: 302-283-2136

Approved for use through 10/31/2002. OMB 0651-0031 U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

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| Complete if Known      |                     |  |  |
|------------------------|---------------------|--|--|
| Application Number     | 09/608,537          |  |  |
| Filing Date            | 6/30/2000           |  |  |
| First Named Inventor   | Vishwanathan et al. |  |  |
| Art Unit               | 3724                |  |  |
| Examiner Name          | T. Eley             |  |  |
| Attorney Docket Number | 126                 |  |  |

|   |                                |  | U.S. PATE                               | NT DOCUMENTS                                       |   |
|---|--------------------------------|--|---|--|---|
| Examiner<br>Initials*                   | Cite<br>No.1                   | Document Number  Number - Kind Code <sup>2</sup> ( <i>if known</i> ) | Publication Date<br>MM-DD-YYYY          | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|   |                                | 09/631,783 (unpublished pending application                          |   | James et al.                                       |   |
| *************************************** |                                | 09/665,841(unpublished pending application                           |   | James et at.                                       | _   |
|   |                                | 6,454,634 B1   | 09-24-2002                              | James et al.                                       | <u> </u>  |
|   |                                | 6,582,283 B1   | 06-24-2003                              | James et al.                                       | CHNOLO  |
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|                       | FOREIGN PATENT DOCUMENTS |  |                                |  |   |                |
|-----------------------|--------------------------|--|--------------------------------|--|---|----------------|
| Examiner<br>Initials* | Cite<br>No.1             | Foreign Patent Document  Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> (if known) | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages<br>or Relevant Figures Appear | T <sup>6</sup> |
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|-----------|------------|------|
| Examiner  | Date       |      |
| Signature | Considered |      |
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'British and the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. Applicant is to place a check mark here if English language Translation is attached. Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.